

It is the mission of the Department of Environmental Protection to conserve, improve, and protect the natural resources and environment of the State of Connecticut; to control air, land and water pollution in order to protect the health, safety and welfare of the people of Connecticut; and to preserve and enhance the quality of life for present and future generations.

Introduction

Connecticut General Statutes Section 22a-6t, as amended by Public Act 99-225 (28), requires the Department of Environmental Protection ("Department") to submit an annual report to the joint standing committee of the General Assembly having cognizance of matters relating to the environment on compliance and enforcement activities conducted by the Department. Specifically, the statute requires that the report provide information on permit compliance, enforcement actions, compliance assistance activities and an evaluation of environmental performance of entities regulated by the Department.

The Department strives to achieve the highest level of environmental protection by use of traditional regulatory controls - a combination of establishing standards, authorizing activities and enforcing compliance with those standards and authorizations - together with financial, regulatory, and technical compliance assistance. The Department is committed to enforcing applicable law by means of administrative orders and lawsuits when serious violations or chronic or recalcitrant violators are involved, while at the same time promoting compliance assistance in its planning, permitting, and enforcement programs.

This past year the Department has managed to fulfill its permitting, enforcement and compliance assistance responsibilities while juggling myriad new initiatives. Among the new efforts consuming significant agency time and resources in 1999 were:

- Initiating design and development of a comprehensive information management system capable of meeting the permit and enforcement business needs of the Department. On December 28, 1999, in response to Section 27 of Public Act 99-225, the Department provided the Environment Committee with a detailed report on agency progress in reviewing and improving its information and document management capabilities. The stated goal of the newly named Environmental Data & Geographic Exchange ("EDGE") project is to design and implement a comprehensive environmental management system which will integrate agency information, geographic information, and business processes across program and organizational lines and provide improved access to environmental information. To achieve this goal, in 2000 the Department will draw experienced permitting and enforcement staff away from their normal responsibilities. Allocating resources to the EDGE project will result in near-term reductions in the number of permits issued and enforcement actions taken. The long-term gain will be well worth the cost - among other benefits,

the information management system to be developed will allow the Department to easily determine compliance rates for each of our programs so they can be tracked and compared year-to-year. It will also allow the Department to make available accurate, up-to-date compliance information on individual facilities.

- Energy deregulation has created a multitude of permit, enforcement and regulatory issues for the Department. For example, all of the state's fossil fuel burning plants and many of its hydroelectric facilities are under new ownership. When a regulated facility such as a power plant changes hands, it triggers compliance reviews, enforcement actions and permit review and transfer activity in the Air, Waste and Water Bureaus. In addition, the Department faced an increased workload associated with the proposed development of fifteen new gas-fired power plants. In 1999, hundreds of staff hours were dedicated to complex and technically challenging applications for gas-fired plants in Killingly, Milford, Meriden, New Milford and Oxford.
- Responding to recommendations contained in the Legislative Program Review and Investigations Committee's December 1998 Report on Department Enforcement Policies and Practices. Many steps have been taken by the Department to build enforcement capacity and to improve the timeliness and consistency of its enforcement actions. The Department provided the Environment Committee with a copy of its detailed January 19, 2000 response to the Legislative Program Review and Investigations Committee.

Strategic Priorities for 2000 - 2001

In 1997, the Department entered into its first Performance Partnership Agreement ("PPA") with the federal Environmental Protection Agency ("EPA"). The PPA is the product of a process whereby the Department and EPA New England agree upon mutual environmental priorities and strategies to achieve them through collaborative planning and priority setting. Among the benefits the state and EPA envision through this process is an environmental management approach which more effectively links program activities with improved performance and environmental results. This approach comports with the Department's prior reports to the Environment Committee that emphasized enforcement and compliance assistance as tools to achieving better environmental performance and results as opposed to merely goals in and of themselves.

The most recent PPA for 2000/2001 is organized according to the goals, objectives/milestones, strategies and measures for the Air, Waste and Water programs. It also includes a section on Connecticut's strategic priorities for the next two years, including: (i) Connecticut's Information Integration & Improvement Project (Renamed Environmental Data and Geographic Exchange ("EDGE")); (ii) Efficient and Effective Enforcement; (iii) Enhancing Timeliness of Permit Issuance; (iv) Environmental Assistance and Outreach Including: P2, Urban Initiatives Compliance/Small Business Assistance, Municipalities; (v) Watershed Management (Includes Nitrogen Deposition); (vi) Management of Air Toxics; (vii) Mercury Management in Connecticut; (viii) Long Island Sound; (ix) Land Acquisition, and (x) Enhancement of Wildlife Restoration and Habitat Protection.

For your convenience, a fact sheet presenting each of these top priorities is appended to this report. Additionally, the most recent PPA for 2000/2001 is available in its entirety at the Department's web site (<http://dep.state.ct.us>).

Enforcement

The goal of the Department's enforcement programs is to improve and protect the environment by accomplishing the following: (1) prevention and prompt cleanup of pollution and its sources; (2) protection and restoration of natural resources at the site where a violation occurs and at other sites; (3) protection of public health and safety; (4) prompt compliance with legal requirements that have been violated; (5) deterrence specific to the individual violator and to the regulated community as a whole; (6) removal of any economic advantage or savings realized by noncompliance; and (7) punishment of violators.

The Department is committed to using its enforcement authority wisely, at all times seeking to produce the maximum benefit to the environment with each action we take. Through its Enforcement Response Policy, the Department prioritizes its enforcement resources by focusing on the most significant environmental, human health and noncompliance problems. Two categories of violators deserve and get the most attention from our enforcement staff. The first category of violators are those whose violations pose the greatest risk to public health and the environment within the State. The second category of violators subject to heightened enforcement is the chronic or recalcitrant violator. Chronic or recalcitrant violators are those demonstrating a pattern or practice of noncompliance with environmental laws; review of a chronic or recalcitrant violator's compliance history indicates a general unwillingness or inability to comply with applicable requirements. Repeated violations or failure of a violator to quickly correct violations in the past or present may also characterize a particular violator as a high priority for enforcement action.

Before discussing statistical trends, the Department acknowledges that it is currently unable to effectively address two new enforcement-related reporting requirements contained in Conn. Gen. Stat. Section 22a-6t. Public Act 99-225 requires the Department to report on the timeliness of enforcement actions in the preceding year compared to standards established by Department policy, and on any exceptions or variances to Department policy related to enforcement actions. While the Department intends to supply this information in future reports, it is unable to do so at the present time due to the brief period between passage of the new requirements and the due date of this report.

A system is in place to collect the requested data so that it may be provided in future reports. Relying on post-enforcement action review by the Office of Enforcement Policy and Coordination ("OEPC"), the Department will discern exceptions to and variances from Department policy, including those relating to timeliness. A copy of every formal enforcement action is provided to OEPC so that it can assess the consistency of each action with existing policy and documentation requirements. Cases are reviewed for timeliness, uniformity in application of the Department's various enforcement policies, and for completeness of documentation. Given that the cases reviewed were initiated prior to adoption of the revised Enforcement Response Policy, conclusions drawn from them are of limited value. Information derived from case reviews of violations discovered after June 1, 1999 (the effective date of the revised Enforcement Response

Policy) will have greater meaning in terms of consistency with current policy. And since penalty issues often slow resolution of enforcement cases, the Department's ability to produce timely enforcement actions is expected to further improve following adoption of the new Civil Penalty Policy at the end of this month.

More importantly, the Department is aggressively pursuing changes to policy and practices that will improve the timeliness of enforcement actions and minimize variances. Developing sound enforcement policies, training management and staff in them and making such policies universally available throughout the Department is expected to reduce the number of variances. Recently, the Department has taken steps to make actions more timely and consistent, including (1) revising the Enforcement Response Policy ("ERP") to reflect more realistic timelines for completion of enforcement actions, and (2) delegating of Notice of Violation ("NOV") authority. On December 15, 1999, the Commissioner amended the Department's Delegations of Authority to allow each enforcement Director to further delegate to staff authority to issue NOVs and to issue Warning Notices issued pursuant to Conn. Gen. Stat. Section 22a-6s. The potential benefits of employing "field NOVs" include swifter correction of noncompliance by regulated entities, more inspections in some programs, and greater opportunity for inspectors to focus on other important work, including timelier closure of outstanding actions.

Statistical Trends In Enforcement

Reviewing traditional enforcement outputs has some value as a measure of agency performance. What enforcement data in this report cannot tell you is if these actions returned a facility to full compliance. Enforcement statistics also fail to inform the reader if the measures taken had any real positive impact on the environment. While the Department needs to maintain output measures, it also needs to develop measures that characterize the impact of those outputs. The EDGE project introduced above and other ongoing initiatives are designed to move the Department toward developing and implementing measures that describe and quantify in environmental and public health terms the benefit of the Department's actions.

Overall, the most current enforcement statistics available reflect the Department's continued reliance on traditional enforcement tools. In 1999, as in calendar year 1998, combined enforcement outputs for the Air, Waste and Water Bureaus exceed the running five year average in every significant statistical measure:

Activity	1995	1996	1997	1998*	1999*	Five Year Average
Referrals(AG/EPA/CSA)	34	62	73	67	66	60
Orders	103	119	115	124	146	121
Notices of Violations	648	714	1247	1293	1439	1068

*Including the Office of Long Island Sound Programs

February 1, 2000

In 1999 the Department collected over \$1.07 million in combined administrative fines and supplemental environmental projects, and, with the assistance of the Attorney General, caused nearly \$1.9 million in civil penalties to be assessed in civil judgments following referral for civil action (the amount actually collected may be less). In addition, the Chief State's Attorney's Office, working closely with the Department's Waste Engineering and Enforcement Division, successfully prosecuted a number of cases for illegal disposal of hazardous waste.



State of Connecticut
Department of Environmental Protection
1999 Enforcement Statistics - Annual Summary
(Rev. 01/27/99)

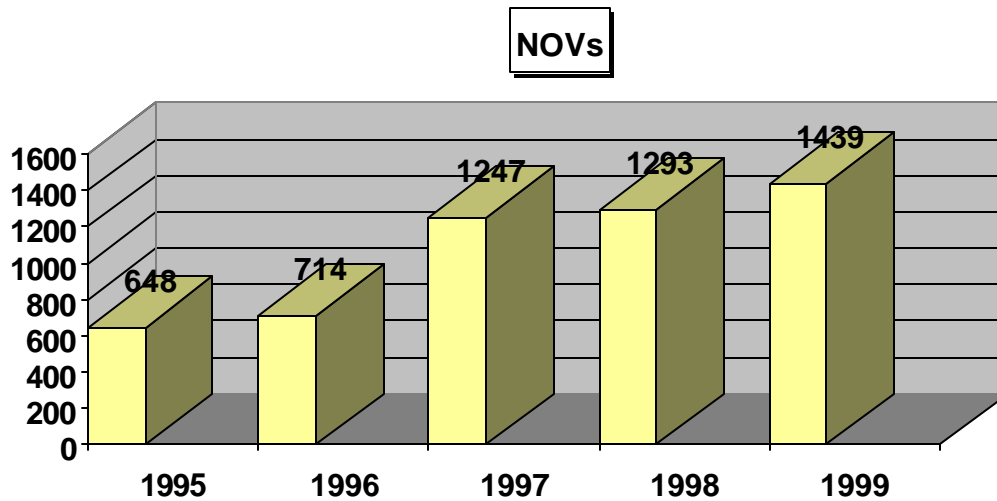
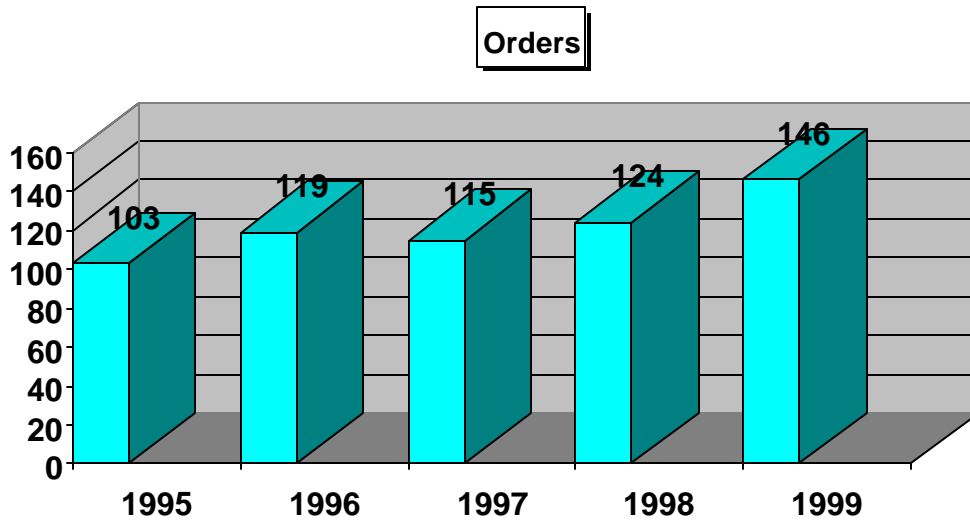
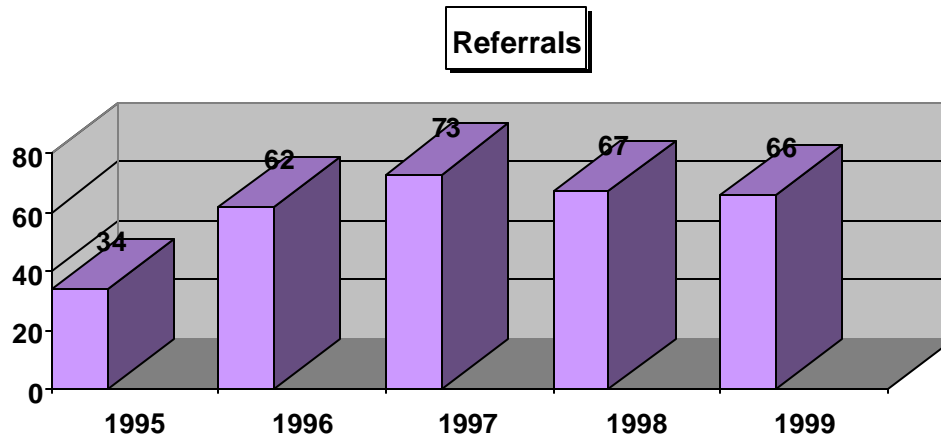
Actions	Air Management Bureau	Water Management Bureau	Waste Management Bureau	Office of Long Island Sound Programs	Total for year ¹ (1/1/99 - 12/31/99)
Warning Notices Issued under CGS ' 22a-6s	N/A	N/A	27	N/A	27
Notices of Violation Issued²	429*	486	501	23	1439
Consent Orders Issued	34	22	56	11	123
Administrative Penalties Assessed (# of cases)	\$103,000.00 (5)	\$168,160.00 (7)	\$326,019.00 (33)	\$60,000.00 (9)	\$657,179.00 (54)
Supplemental Environmental Projects (# of cases)	\$22,175.00 (3)	\$142,752.00 (6)	\$228,334.00 (8)	\$22,500.00 (3)	\$415,761.00 (20)
Unilateral Orders Issued	1	17	5	0	23
Attorney General Referrals	5	16	20	0	41
Judicial Assessments					
Penalties	\$19,000.00	\$623,000.00	\$137,500.00	\$0.00	\$779,500.00
Supplemental Environmental Projects	\$0.00	\$1,100,000.00	\$0.00	\$0.00	\$1,100,000.00
Chief State's Attorney Referrals	0	1	0	0	1
Referrals to EPA	2	0	22	0	24
Inspections Conducted (including complaint investigations)	8336*	1879	1,613	222	12,050

*Includes the Radiation Division (34 NOVs, 348 Inspections) for the first time.

¹ Due to multi-media cases, totals may not reconcile with bureau specific statistics

² As used in this table, Notices of Violation include NOVs issued by Program Directors, field-issued citations and warning letters.

Enforcement Statistics 1995-1999 Department-wide



Enforcement Statistics 1995-1999
Air Management Bureau

Program Activity	1995	1996	1997	1998	1999	Five Year Average
Warning Notices						
Notices of Violations	92	139	290	338	429*	258
Orders	27	57	32	27	35**	36
Referrals(AG/EPA/CSA)	4	6	5	10	7	6

*Includes the Radiation Division (34 NOVs) for the first time.

**Of the 35 orders reported for 1999, 12 are "traditional" enforcement actions addressing past violations and 23 are NOx RACT Compliance Orders issued pursuant to RCSCA ' 22a-174-22(J). The NOx Ract orders create an enforceable mechanism by which the source is brought into compliance with the NOx Ract Regulations.

Enforcement Statistics 1995-1999
Waste Management Bureau

Program Activity	1995	1996	1997	1998	1999	Five Year Average
Warning Notices		31	19	23	27	
Notices of Violations	427	443	514	461	501	469
Orders	29	25	32	36	61	37
Referrals(AG/EPA/CSA)	20	39	46	40	42	37

Enforcement Statistics 1995-1999
Water Management Bureau

Program Activity	1995	1996	1997	1998	1999	Five Year Average
Warning Notices			3			
Notices of Violations	129	132	441	477	486	333
Orders	47	37	42	54	39	44
Referrals(AG/EPA/CSA)	10	17	20	17	17	16

Enforcement Initiatives in 1999

Each year, the Department's various enforcement programs target resources at known or suspected areas of non-compliance. The following pages summarize some of those high priority enforcement initiatives for calendar year 1999.

- The Department's Air Bureau is focusing research and enforcement efforts on sources of hazardous air pollutants that may pose a threat to public health. This past year, the Air Bureau initiated a three-year study to characterize toxic emissions from Title V sources and solid waste disposal facilities. Upon completion of the study, the Air Bureau will determine if additional permit conditions are needed to further reduce emissions. More immediately, Air Bureau compliance efforts have focused on reducing potentially toxic chromium emissions from chromium electroplaters. Violations of the Department's hazardous air pollutant regulations are designated in the Department's revised Enforcement Response Policy as high priority to ensure quick enforcement response. Accordingly, of the forty-two formal actions taken by the Air Bureau in 1999, six were associated with excess chrome emissions and three others were for other hazardous air pollutant violations. Hazardous air pollutant emissions cases are among the more complex and resource intensive handled by the air program.
- The Radiation Division played an integral role in decommissioning nuclear facilities in 1999. This effort entailed reviewing decommissioning plans, monitoring decommissioning activity, and confirming radiological analyses. The Radiation Division's efforts in this area insure compliance with radiation protection standards necessary for protection of public health and the environment.
- The Air Bureau has found the Notice of Violation to be a highly effective enforcement tool when there is diligent follow-up to ensure that the source actually returns to compliance. To ensure that compliance is achieved, Bureau enforcement staff follow up on reported compliance steps with document reviews, inspections, and surveillance. However, in both the 1997 EPA multi-media enforcement review and the December 1998 review by the Legislative Program Review and Investigations Committee, concern was raised over the number of NOVs that were "open". In response, the Bureau shifted enforcement staff resources to focus additional efforts on closing out NOVs. As a result, staff made final disposition determinations on 400 NOVs in 1999, more than double the rate in the preceding year and more than triple the yearly average for the decade.
- In 1999, the Waste Engineering and Enforcement Division ("WEED") devoted extensive resources to support the continued aggressive investigation and prosecution of environmental crimes by the Office of the Chief State's Attorney, and the Criminal Investigation Division of EPA. WEED provided case development support such as follow-up inspections, sampling, file research, and court testimony in the following cases: Rose Mill, Manchester - 1999 guilty plea for illegal disposal of hazardous waste at the Manchester Landfill; Q-Park Landfill, Hamden - 1999 arrest for solid

waste violations; Sound Manufacturing, Norwich - 1999 interrogatories stemming from 1998 arrests for illegal disposal of hazardous waste beneath a building floor; and Cover-It, West Haven – 1999 conviction for illegal disposal of hazardous waste.

- This past year, WEED began an initiative to ensure compliance with the RCRA Hazardous Waste Management regulations at the Department's 130 (approximately) field sites. In 1999, the initiative included: an information-gathering/compliance assessment phase (20 onsite audits and a series of interviews and questionnaires); development of a manual of Standard Operating Procedures ("SOP") for hazardous waste handling, waste reduction, product substitution, and recycling options; and training in regulatory compliance and the use of the SOP for Department's field site managers and coordinators, including four one-day sessions and six half-day follow-up sessions.

Toward the end of 1999, WEED began an evaluation of the program's effectiveness in conjunction with the Department's Safety Office. This evaluation will be completed in 2000, and will include comprehensive inspections and more training sessions. However, already apparent are the following successes, including: significantly reduced shipment of hazardous waste offsite for disposal; virtual elimination of halogenated solvent use; and recycling of used oil as fuel to heat two Department maintenance facilities. The initiative has also helped spawn programs for recycling of the following wastestreams from Department field sites: lead-acid and rechargeable batteries, freon, aerosol cans, propane cylinders, and boat wastewater.

- The Underground Storage Tank Enforcement Program ("USTEP") has engaged in a special enforcement and inspection initiative throughout 1999. A state regulation incorporated a federal deadline of December 22, 1998 for closure or upgrade of antiquated or improperly designed or protected commercial underground storage tank ("UST") systems for petroleum products and CERCLA/hazardous chemicals. The deadline also banned the use of bare steel tanks and required installation of spill buckets and overfills prevention devices at fill pipes of conforming UST systems.

Since January 1, 1999, USTEP has performed nearly 350 compliance inspections at facilities with USTs. Facilities are targeted for inspection based on a computer-generated list of sites suspected of December 22, 1998 deadline violations. Action at facilities throughout the state has resulted in 35 consent orders being offered to violators with at least 20 of those consent orders signed and closed to date. This project will remain a USTEP priority for calendar year 2000. As a greater number of facilities come into compliance with state regulations, the Department anticipates a welcomed decrease in the number of enforcement actions resulting from this initiative.

- By Public Act 98-229, the General Assembly transferred regulatory authority to license arborists (tree care professionals) to the Department's Pesticide Management Program. Also enacted at that time was a new penalty statute (now codified at Conn. Gen. Stat. Section 23-61f) which established a minimum penalty of one thousand dollars for persons performing or advertising arboriculture without a license. During

calendar year 1999, personnel from the Pesticide Management Program spent considerable time and effort in effectuating the program transfer from the Department of Consumer Protection and in enforcing the new program. As a result, twenty-eight individuals were found to be providing arboriculture services without a license and each was penalized one thousand dollars. In seven additional cases the alleged unlicensed arborist refused to enter into an administrative consent order and has been referred to the Office of the Attorney General for the filing of a civil action. Not coincidentally, demand to take the exam to become a licensed arborist has increased dramatically. In response, the Pesticide Management Program has offered the written exam more frequently and the Tree Protective Examining Board has been compelled to add two extra test dates to accommodate the number of persons seeking to take the requisite oral exam.

- Recent water pollution control efforts undertaken at Bradley International Airport ("BIA") respond to the need to remedy problems associated with aircraft deicing chemical (propylene glycol) releases. The Department and the Department of Transportation ("DOT") have adopted pollution prevention strategies to deal with what is clearly a very complex matter. The program to mitigate the impacts of the chemical deicing process at BIA is a national model, with the most recent advances regarding propylene glycol recovery and reuse having been recognized by the US EPA as "cutting edge" during a recent national conference. In March 1999, construction began on a \$15 million remote deicing facility designed to service up to five planes at a time. This permanent collection facility will capture, treat and recycle the vast majority of glycol-contaminated stormwater runoff and greatly improve the quality of affected receiving streams (i.e., Rainbow and Seymour Hollow Brooks). Also in 1999, BIA upgraded the existing manually operated glycol collectors used at the gates. The work done in 1999 was the result of one of many enforceable provisions of a Consent Order entered between the Department and DOT in September 1998.
- An area of increasing interest by enforcement staff within the Water Bureau is the Remediation Program. For many years within the Remediation Program, it has been the practice to focus almost exclusively on taking action to correct the contamination problem, not to enforce against the underlying violations that caused the contamination in the first place. Penalties were rarely if ever sought in these situations. Under the revised June, 1999 Enforcement Response Policy, actions resulting in contamination represent high priority violations that may dictate strong enforcement action, including penalties. In many cases, the Water Bureau now assesses penalties in remediation actions, either through consent orders or following referral to the Attorney General's Office.

In summary, the Department possesses a strong, credible enforcement program critical to our mission to conserve, improve and protect the natural resources and environment of the State. Traditional enforcement activity remains the cornerstone of the Department's compliance assurance efforts, especially in cases involving serious violations or chronic or recalcitrant violators.

Permit Compliance

The Department employs a variety of regulatory devices to insure the protection and preservation of public health and the environment. Through regulations, permits, licenses, authorizations, and certifications, among other tools, the Department allows and controls the discharge and emission of potential pollutants, allows the construction of structures or other alterations of the landscape, and regulates the operation of certain facilities in a manner that avoids adverse environmental impacts and poses the minimum threat to the environment. These permits and other authorizations dictate the levels of emissions, set conditions for operation, and impose management practices that, when complied with, are designed to prevent pollution of the air, water and other natural resources of Connecticut.

Currently, there are over 86,000 activities authorized in some way by the Department. The following table shows the breakdown of current activities by authorization type:

Number of Active Permits/Authorizations/Licenses/Registrations	
Individual Permits	3,724
General Permits Categories Registered Activities *	36 6,766
Certificates of Permission	258
Authorizations	363
Registrations	62,869
Professional Licenses	12,132
Department-wide totals	86,112

*The Department authorizes additional activities under General Permits that do not require registration but are nonetheless regulated.

Permit Compliance Initiatives in 1999

Each year, the Department's various permit programs focus resources on new permit initiatives or known or suspected areas of non-compliance. The following pages summarize some of those high priority initiatives for calendar year 1999.

- The Title V program requires the Air Management Bureau to develop all-encompassing permits for emissions from the largest, most complex facilities the Bureau regulates. In response, the Air Bureau first developed general permits so facilities with smaller emissions but still subject to Title V had a mechanism to comply without going through the time and expense of obtaining an individual permit. Compliance assistance was targeted at helping small sources get these

general permits. Through a very resource intensive general permitting effort, a total of 371 general permit registrations were issued, allowing eligible facilities to operate without becoming Title V sources. With respect to sources subject to Title V, approximately 525 sources underwent comprehensive inspections during the year, and 69 NOV's were issued for failure to apply for a Title V permit or GPLPE registration. This represents an 87% compliance rate with the requirement to obtain a Title V permit.

- In 1999, the Waste Engineering and Enforcement Division evaluated compliance at various permitted solid and hazardous waste facilities and at hazardous waste generators that are not permitted but are nonetheless subject to regulation. In detail, the following categories of facilities are included in the 1999 compliance assessment: hazardous waste treatment, storage and disposal facilities; hazardous waste transporters; large and small quantity hazardous waste generators; and solid waste volume reduction facilities, resource recovery facilities, intermediate processing centers, transfer stations, and land disposal facilities (ash residue, municipal solid waste, bulky waste and special waste).

Based on inspections conducted in 1999, the percentage of permitted solid waste and hazardous waste facilities and regulated hazardous waste generators operating in full compliance is approximately 56%. Of the 361 subject facilities inspected in 1999, 201 facilities were compliant and 160 facilities were determined to be non-compliant with their permit or the regulations. The compliance rate for permitted solid and hazardous waste facilities was 61%, and, for hazardous waste generators was 51%. Note that full compliance means no violations were identified, including "minor violations" as defined by Conn. Gen. Stat. Section 22a-6s.

- In 1998, the Department's Inland Water Resources Division aggressively pursued a post-permit inspection program for Department of Transportation ("DOT") activities authorized pursuant to inland wetlands and watercourses permits. The Department found that approximately 17% of all DOT projects inspected after construction was completed required corrections or revisions. In an effort to reduce permit non-compliance, a program of inspecting DOT projects while under construction was initiated for the 1999 construction season. Twenty-eight projects were included in the initiative. As a result of these regular inspections, only one of the projects required post-completion follow up. In addition, the quality of erosion controls at DOT sites has greatly increased, compliance with monthly monitoring requirements jumped from 75% to 100% and DOT staff is generally more aware of their environmental obligations.
- Following several years of outreach and education, in 1999 the Water Management Bureau's Permitting Enforcement and Remediation Division placed greater emphasis on enforcing against municipalities that failed to comply with Stormwater General permit requirements. Many routine activities carried out by municipalities at public works garages, sand/salt piles, and vehicle maintenance facilities, among others, can be a source of pollution if managed improperly. Stormwater discharges from these

activities are covered under the Stormwater General permit. Unfortunately, many towns have failed to register for coverage, or in some cases failed to comply with the permit requirements once registered. In an increasing number of cases the Department is assessing penalties against those towns for noncompliance with Stormwater General permit obligations.

Measuring Performance

The Department has begun tracking inspections and compliance by categories consistent with commitments made in its Environmental Performance Partnership Agreement (“PPA”) with EPA (see Strategic Priorities, page 3). For example, in the 2000-2001 PPA, the Air Management Bureau has committed to inspect in each of the next two federal fiscal years one third of the 371 facilities licensed under its General Permit to Limit Potential to Emit. The Air Management Bureau has also committed to audit monitoring and test data from another 36 of these facilities in each of the federal fiscal years. Over the course of each year, the Air Bureau will monitor and track its success against commitments contained in the PPA. So next year, instead of having a single number to indicate all compliance inspections, the Department will break down inspections conducted into discrete categories. The Department will produce an inventory of the number of inspections conducted at metal finishing facilities and the number of inspections at chemical preparation plants, among others. Detailed compliance information will allow the Department to make better, more effective use of existing resources. It will also allow the Department to direct compliance assistance and enforcement to sectors where they are most needed and disinvest from areas where a high rate of compliance has been achieved and sustained.

Using the inspection category commitments made by the Department to EPA in the PPA, the following are examples of estimated compliance rates by category from major enforcement programs in the Air, Water and Waste Bureaus. To derive the rate of compliance:

$$\% \text{ Compliance} = 100 - \frac{\# \text{ of NOV's found in category} \times 100}{\# \text{ of facilities inspected in category}}$$

The tables below are examples of the analysis that has been done for 1999 within the Air, Waste and Water Bureaus.

**Examples of Air Management
Compliance Rates for Calendar Year 1999
By Category**

Inspection Category	Inspections Conducted 1999	Estimated # of Facilities By Category	# of NOVs 1999	Estimated % Compliance
General Permit to Limit Potential to Emit (GPLPE)	360 (85 field inspections, 275 report reviews)	371	4	99%
General Permit for Automobile Refinishing (GPAP)	30	493	13	57%*
Other General Permits for NSR (GPNSR)	311	645	5	98%

* The autobody general permit program is new; the Air Bureau expects to see improved compliance in this sector over time.

**Example of Water Management
Compliance Rates for Federal Fiscal Year 1999
By Category**

Inspection Category	Inspections Conducted FFY 99	Total # of Facilities By Category FFY	# of NOVs FFY 1999	Estimated % Compliance
NPDES –Majors Industrial Sewage Treatment Plant	Ind- 50	Ind- 50	Ind- 6	88%
	STP- 65	STP- 65	STP- 5	92%
Pre-treatment – SIU	216	267	36	83%
NPDES - Minors Industrial Sewage Treatment Plant	Ind- 42	Ind- 100	Ind- 5	88%
	STP- 40	STP- 47	STP- 10	75%

**Examples of Waste Management
Compliance Rates for Calendar Year 1999
& Significant Non-Compliance
By Category**

Inspection Category	Inspections Conducted 1999	Total # of Facilities By Category	# of NOV's 1999	Estimated % Compliance	# of Inspections with SNC	% of SNC* <u>Non-compliance</u>
Large Quantity Generators	46	589	26	43%	4	9%
Commercial Facilities-TSF/LDFs	4	4	1	75%	1	25%
Treatment Storage Disposal Facilities	7	84	2	71%	1	14%
Land Disposal Facilities/Hazardous	10	96	0	100%	1	10%
Transporters	6	233	5	17%	0	0%
River Basin SQG or CESQG – Thames & Mattabassett	21	N/A	6	71%	1	5%
Volume Reduction	20	18	4	80%	2	10%
Resource Recovery	25	7	1	96%	0	0%
Intermediate Processing Center	3	5	1	66%	1	33%
Transfer Stations	37	138	6	84%	4	11%
Land Disposal Facilities/Solid	51	58	4	92%	0	0%

* SNC (Significant Non-compliance) - The violator/violation is significant enough to require a formal enforcement response. In addition to assessing compliance rates based upon NOV's, the Waste Management Bureau also chose to provide a noncompliance rate based upon Significant Non-compliance as defined by EPA. This rate is indicative of violations that the Waste Bureau has determined require formal enforcement action

Another measures initiative that warrants mention is the Department's General Permit Compliance Measurement Project. In August 1999, Connecticut became one of eight states (out of over 30 applicants) to be awarded funding for a compliance measurement pilot project sponsored by EPA. The pilot reflects ongoing efforts at EPA to begin to measure compliance activities as opposed to enforcement activities. The proposal submitted by the Department will develop statistically valid baseline compliance rates for select general permits and evaluate the effectiveness of compliance assistance and enforcement on overall compliance with general permits.

Compliance Assistance and Pollution Prevention

In 1999, the Department continued to develop and employ pro-active, cooperative strategies to gain environmental compliance. Categorized in this report as "compliance assistance and pollution prevention", the initiatives described below focus on providing the regulated community with timely and consistent information on environmental obligations, and, in many cases, offering effective strategies to meet them. Compliance assistance does not replace traditional enforcement. It does, however, share with enforcement the goal of compliance assurance. For many of the assistance and pollution prevention programs inventoried below, the Department has had to rely heavily on competitive grants for funding. Despite funding and other resource obstacles, these initiatives have succeeded by promoting pollution prevention and new and innovative approaches to environmental compliance.

The Department inventories all compliance assistance activities proposed or underway as a method to identify improved multi-media opportunities. The inventory has helped provide a more holistic presentation of assistance to the regulated community and also has provided a mechanism to improve coordination and alignment internally, and with EPA. During 1999, the Department held several meetings with EPA's Office of Environmental Stewardship to discuss assistance priorities on both the state and federal levels. While there are many areas for further improvement, these steps are helping to improve the delivery of assistance to the regulated community in Connecticut.

Examples of Tools and Initiatives

There are many forms of compliance assistance, some of which are: providing information and assistance on regulatory requirements, conducting seminars and workshops, or financial assistance. In almost all cases, compliance assistance represents a resource investment at the "front end" and is designed to encourage the regulated community to act proactively to comply with environmental laws and regulations. The Department continues to sponsor high-quality, low-cost seminars for the regulated community and the public on a wide variety of environmental topics. Forums for these events include the Connecticut Business and Industry Association ("CBIA"), the Connecticut Forum for Regulated Environmental Professionals ("CFREP"), Government Institutes sponsored training, and numerous Department co-sponsored conferences. The Department has also redoubled its efforts to meet with and assist municipal officials throughout Connecticut. The Department will continue to develop and distribute assistance and pollution prevention materials such as fact sheets, checklists and training packages.

- **Dedicated Resources** - The Department continues to dedicate significant resources for media specific assistance activities. The Compliance Assistance Program ("COMPASS") is an outreach service provided by the Waste Bureau to assist Connecticut businesses and industries in complying with waste management regulations and also includes a toll-free help-line. The Waste Bureau Office of

Pollution Prevention continues to offer technical assistance to identify opportunities to implement pollution prevention. The Waste Management Bureau also reviews all state-funded projects to recommend P2 initiatives and to ensure that adequate provision is made for compliance with waste statutes and regulations. The Ombudsman/Permits Assistance Office provided direct assistance to over 4500 customers. Further, by providing 7-day/24 hour on-line access via the Department's web site, persons seeking permit guidance and electronic forms generate more than 2000 "web hits" and download over 800 requests on a monthly basis. The Small Business/Compliance Assistance Program continues to develop tools such as computer software and training materials for specific small business sectors. Small businesses and others that have taken advantage of these services include: autobody shops; automotive service stations; dry cleaners; metal finishers; printers; multi-tenant property managers; hospitals; schools and universities.

- **Integrated Pest Management** – The Department has been promoting integrated pest management ("IPM") as a way to reduce the volume and frequency of pesticide applications for all types of pest control as part of the Department's Strategic Plan and Pollution Prevention initiative. Model IPM plans have been developed for the General Pest, Rodent and Ornamental & Turf categories of commercial pest control. Additional model plans will be forthcoming for the Arborist, Bird and Termite categories. IPM is also being promoted via mass mailings of the model IPM plans to all Connecticut municipalities and a statewide advertising campaign that urges the general public to request IPM from their pest control provider. Pesticide Management Division staff also provides technical assistance to municipalities and the regulated community when requested. Additionally, nine model programs have been developed to demonstrate the effectiveness of IPM in schools. Eight of the programs have been established through enforcement actions that resulted in consent orders. Four programs have been completed and have resulted in a 94.6 to 100% reduction of the total volume of pesticides applied while maintaining pest populations at or below established tolerances. The Pesticide Management Division will develop additional model IPM programs whenever possible to help promote IPM implementation statewide.
- **The Hartford Neighborhood Project** - For the past four years, the Department has partnered with community organizations, institutions and small businesses to enhance the economic opportunities, environment and quality of life in four primarily African-American and Hispanic neighborhoods in Hartford. Activities this year included conferences, pollution prevention workshops, training sessions, on-site multi-media inspections and other related neighborhood outreach mechanisms. A major event was an Earth Day Conference for nearly 300 community adults and children. In addition, the project provided training sessions on environmental management systems to local hospitals.
- **Urban Initiatives** - The Department continues to foster urban revitalization through permitting and remediation assistance provided to major development projects in our cities. Projects that the Department has worked closely on include but are not limited to the Learning Corridor and Riverfront Recapture projects in Hartford, waterfront

redevelopment projects in Bridgeport, New Haven, and New London, and the Juvenile Detention facility in Middletown.

- **Development of Electronic Tools** - The Small Business/Compliance Assistance Program and the Air Management Bureau are finalizing a pilot software program to assist facilities in complying with Connecticut's air permitting requirements. The program will include computerized spreadsheets that will enable facility personnel to calculate emissions necessary for permit application preparation, to track materials used, to monitor compliance with the permit once issued, and to provide a consistent method of maintaining records to demonstrate compliance over the long term. Similarly, the Air Bureau Radiation Division is implementing a computer program to assist low-level radioactive waste generators to comply with state regulations concerning the generation and management of low-level radioactive waste and materials. Custom designed software helps facilities manage records and generate annual reports. Annual reports for 1999 can be submitted with the new software, and beginning in 2000, submissions using the software tool will be required. Training and assistance with the use of this compliance assistance tool have begun and will continue.

The Department will also pursue the development of a multi-media CD for the metal coatings industry. The CD will be designed to guide the user to compliance and pollution prevention information specific to the facility and will include electronic permit application forms and a system to provide a consistent method of maintaining records to demonstrate compliance over the long term.

- **Green Circle Awards** - In 1998 the Department initiated the Green Circle Awards program to recognize businesses, institutions, civic organizations and individuals who have undertaken pollution prevention, waste reduction, or other projects promoting natural resource conservation and environmental awareness. In that first year, the Department made over 150 awards, including approximately thirty to companies which had undertaken pollution prevention and "beyond compliance" activities. To date, more than 250 businesses, institutions, civic organizations and individuals have been recognized for their involvement in over 325 projects.
- **Outreach on Stormwater Phase II** – In 1999 the Water Bureau sponsored a major outreach initiative primarily focused on the new Phase II stormwater requirements. Program co-sponsors included the Connecticut Highway Supervisors, the Soil & Water Conservation Districts, Briarwood College, and the University of Connecticut. Through 15 seminar/workshop presentations, this effort succeeded in reaching approximately 850 attendees, mostly construction contractors and municipal officials.
- **Innovative Strategies and Environmental Management Systems** - The Department is continuing its involvement in the EPA StarTrack program by partnering with EPA and Connecticut companies to pursue opportunities for enhanced environmental performance through the expanded use of compliance self-audits, third party certifications, and corporate environmental management systems. The Department participates in the nation-wide "multi-state workgroup" on environmental

management systems, and will begin developing an implementation strategy for Public Act No. 99-226 AAC Exemplary Environmental Management Systems.

- **On-site Recycling Assistance** - The Department conducted inspections at solid waste disposal facilities to determine whether significant quantities of recyclables are being disposed in violation of the state's mandatory recycling program. Notices of violation were given to haulers who were also provided with information about their responsibilities under the recycling statutes. In addition, the generators of the recyclables, primarily schools and businesses, were identified. Recycling staff then visited these generators and offered on-site compliance assistance.
- **ClimateWise** – The Department continues to recruit and provide support to Connecticut manufacturers who pledge to improve the energy efficiency of their operations. ClimateWise partner tasks include writing action plans that identify and quantify energy efficiency actions and greenhouse gas emission reductions. The Connecticut ClimateWise Partnership sponsors 3-4 forums a year which focus on sharing best practices for energy efficiency, networking, and mentoring to other manufacturers. In 1999, the partnership also co-sponsored technical workshops on Steam Plant Improvement, Combined Heat and Power, and The Natural Step. A green power workshop is planned for spring 2000.
- **NICE3** -- The Department continues to work with Connecticut industries to develop project applications for NICE3 funding from the US Dept. of Energy. NICE3 is the National Industrial Competitiveness through Energy, Environment and Economics program. Two applications were submitted in 1999 and one pre-proposal has been submitted for FY2000 funding.
- **Used Oil Guidance** – A draft regulatory assistance guidance document “Management of Used Oils in Connecticut” and twelve topic specific fact sheets were published in January of 1999. The Department is proposing to adopt new Federal used oil regulations under 40 CFR 279 to replace current used oil federal regulations under 40 CFR 266. The documents outline the new management requirements applicable to, among other things, the generation and transportation of used oil. These documents have been disseminated during several conferences sponsored by groups including the Connecticut Business and Industry Association, the Connecticut Construction Industry Association, Bristol Resource Recovery Authority Operating Committee, and Tunxis Recycling Operating Committee.
- **Municipal Outreach** - In 1999 the Deputy Commissioner began an outreach effort directed at municipal officials. Using the existing structure of regional planning organizations, the Department has opened a dialogue with municipal leaders to assess needs and discuss environmental issues of mutual concern. To address one identified need, the Department will be developing an "Environmental Primer" for municipal officials in 2000.

Written guidance documents were sent to all 169 municipalities as a follow-up to a previous on-site compliance assistance initiative for municipal public works garages. The regulatory assistance guidance document, titled "Hazardous Waste Management Guidance Document for Municipal Public Works Garages", and a more condensed fact sheet titled "Hazardous Waste Management at Municipal Public Works Garages" were finalized in May 1999. The documents will help increase awareness of local government officials regarding requirements for the management of wastes generated during maintenance and repair operations.

- **DEP Facility Guidance** – Written guidance documents detailing proper hazardous waste management practices were created and distributed during several facility training sessions held in 1999. Staff from every Department facility in the state was invited to attend the training on hazardous waste management and every participant received a hazardous waste training manual. These manuals detail RCRA requirements for the state facilities and best hazardous waste management practices specific to state facilities. This year, Waste Engineering and Enforcement Division inspectors will conduct final on-site compliance assistance visits at a number of state facilities to ensure compliance with the program. Any violations of RCRA will be cited. Also in 2000, refresher classes will be given to review the program and answer any remaining questions.
- **Public High School Laboratory Initiative** - During 1999 the last of the compliance assistance visits was conducted at high school laboratories that requested such audits following the Department's initial invitation. These assistance visits were highly successful, resulting in school laboratory clean outs, designated hazardous waste storage areas and education distribution to high school laboratories throughout Connecticut.
- **Model Agency Project** - In 1999 the Department also took a look inward at Department facilities to expand pollution prevention activities at field sites. Some of the results of this effort include: eliminating the purchase of chlorinated and fluorinated solvents; substituting water based paints, stains and solvents for more toxic products; expanding the continued use of integrated pest management techniques; phasing out the use of aerosol cans to reduce hazardous waste disposal; including electric vehicles in the fleet at several parks; initiating a recycling program for nicad (nickel-cadmium batteries) and alkaline batteries; and installing composting toilets at certain parks and forest campgrounds.

Advisory Groups

The Department continues to work closely with stakeholders through the Air, Waste, and Water advisory committees. Some of the major issues discussed this past year included emission and effluent trading, solid waste management planning, management of household hazardous waste, implementation of the universal waste rule, reduction of mercury in the environment, and aquifer protection.

- **Waste Management Bureau** - The full membership of the Waste Bureau Advisory committee meets roughly quarterly and will probably move to a biannual schedule over the course of the next year. Most activities have been pursued within the context of subcommittees, the majority of which meet once a month. The subcommittees have issued three final reports: "Recommended Strategy for Release Reporting"; final comments regarding proposed changes to Connecticut's hazardous waste regulations; and guidance for the beneficial use of solid waste. In addition, the Department has issued a proposed draft solid waste management plan that was developed with the help of the Solid Waste Management Plan Subcommittee. Public hearings on the plan are taking place in January and February 2000. The advisory committee process has also been instrumental in developing a strategy to promote the concept and practice of integrated pest management in Connecticut including a public outreach campaign and school demonstration projects. Through this effort a model integrated pest management plan has been developed and prepared for distribution in the public schools. Other subcommittees have been formed and continue to provide recommendations to the Department on regulatory matters such as consolidation of the regulated and special waste programs. A new subcommittee has recently been formed to deal with the management of hazardous waste that can be classified as universal waste.
- **Air Management Bureau** - The State Implementation Plan Revision Advisory Committee ("SIPRAC") focuses on air issues. Meeting topics have covered the full range of issues affecting clean air, including implementation of the Title V Operating Permit Program, revisions to the New Source Review regulations, planning efforts focused on reductions of Mercury emissions, and compliance with the new ozone and fine particulate matter standards. SIPRAC subcommittees continue to play an integral role in the regulatory development process and in providing recommendations for program development. During 1999, three subcommittees have been particularly active: New Source Review, Emissions Credit Trading, and a newly formed subcommittee on Record Keeping and Reporting to evaluate Bureau-wide requirements. A representative of the regulated community and a representative from the environmental community continue to serve as SIPRAC co-chairs. In addition, the Small Business Compliance Advisory Panel ("CAP") provides a dedicated forum for small businesses on air, and other, environmental issues.
- **Water Management Bureau** - During 1999, the Bureau of Water Management's Advisory Committee convened on five separate occasions. The committee discussed the following issues: requirements of newly drafted or revised general permits; enforcement efforts, including the formation of the Department's enforcement

program policies & practices group; legislation; regulation development; aquifer protection; the Naugatuck river restoration project; stormwater; flood warning and response services; and reorganization within the Bureau's Permitting, Enforcement and Remediation Division. Additionally, the Bureau kept the advisory committee apprised of its efforts to improve water quality in Long Island Sound and to update the Department's Diversion Permitting program. In November committee members were asked to review the draft Total Maximum Daily Load Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound. Pursuant to Public Act 98-224, the Bureau also completed its "Diversion 2000" report to the General Assembly. Finally, the December meeting of the advisory committee was devoted entirely to a discussion concerning the revision of water quality standards including dissolved oxygen in Long Island Sound and policy and practices for criteria for bacteria in bathing waters in Connecticut.

Partnering With Other Providers

- **Mercury Summit** - The Department actively participates in regional initiatives that lead to coordinated approaches to environmental compliance among the northeastern states. An example is the Mercury Action Plan which was adopted by the Eastern Canadian Premiers and New England Governors in June 1998 and which outlines regulatory and education strategies to reduce anthropogenic emissions of mercury in the region. The Department was instrumental in organizing a Mercury Summit in Cromwell in January of 1999. The conference was hosted by Governor Rowland and provided an opportunity for stakeholders from state agencies, industry and environmental groups throughout the northeast to discuss ways in which to remove mercury from the solid waste stream. The Mercury Work Group of the Northeast Waste Management Officials Association ("NEWMOA") has developed a set of draft legislative concepts in support of the Mercury Action Plan. Connecticut is a member of the work group.
- **Connecticut Environmental Network** - The Department also participates in the Connecticut Environmental Network, which also includes: Briarwood College, Capital Community Technical College, Connecticut Business and Industry Association, Connecticut Development Authority, Connecticut Economic Resource Center, Connecticut Innovations, Connecticut State Technical Extension Program, Department of Economic and Community Development, and the Manufacturing Alliance of Connecticut. The purpose of the network, which was established in 1998, is to provide easy and direct access to environmental and economic resources in Connecticut.